COMPUTATIONAL FORMULAS

ARREST RATE - An arrest rate describes the number of arrests made by law enforcement agencies per 100,000 total population or per 100,000 population considered to be at risk for arrest. Regardless of the population used, both rates are calculated in the same manner. An arrest rate is calculated by dividing the number of reported arrests by the respective population; the result is multiplied by 100,000. For example, in 2002 there were 487,364 total felony arrests. The total population was 35,301,000 and the total population at risk (10-69 years of age) was 27,302,433.

$$\frac{487,364}{35,301,000} = 0.0138059 \times 100,000 = 1,380.6 \text{ per } 100,000 \text{ population}$$

$$\frac{487,364}{27,302,433} = 0.0178505 \times 100,000 = 1,785.1 \text{ per } 100,000 \text{ population at risk}$$

CLEARANCE RATE - A clearance rate is the percentage of crimes reported that have been cleared. A clearance rate is calculated by dividing the number of crimes cleared by the number of crimes reported; the result is multiplied by 100. For example, in 2002 there were 1,362 homicides cleared and 2,392 homicides reported. This equals a homicide clearance rate of 56.9 percent.

$$\frac{1,362}{2,392} = 0.5693979 \times 100 = 56.9 \text{ percent}$$

CRIME RATE - A crime rate describes the number of crimes reported to law enforcement agencies per 100,000 total population. A crime rate is calculated by dividing the number of reported crimes by the total population; the result is multiplied by 100,000. For example, in 2002 there were 64,805 robberies in California and the population was 35,301,000. This equals a robbery crime rate of 183.6 per 100,000 general population.

$$\frac{64,805}{35,301,000} = 0.0018357 \times 100,000 = 183.6 \text{ per } 100,000 \text{ population}$$

POPULATION AT RISK - Arrest section data tables include three comparison populations: total (10-69 years of age), adult (18-69 years of age), and juvenile (10-17 years of age).

When a series of rates are calculated using different populations, the rate calculated for the total will not be equal to the sum of the rates calculated for each subtotal. For example, the total arrest rate (calculated using the *total* at-risk population) will not equal the sum of the adult arrest rate (calculated using the *adult* at-risk population) and the juvenile arrest rate (calculated using the *juvenile* at-risk population).

Note: Calculating rates for counties of less than 100,000 will generate an inflated rate when compared to counties with populations of 100,000 or more; therefore, rates are not calculated for counties with populations of less than 100,000.

☞ **2002 Profiles**